eral trophic degradation." Throughout the body there is "a functional unity, which might be more accurately termed a triunity, due to the consentaneous operation for the production of a common result of the peripheral organic cell—whether in brain or muscle—a central regulating cell, and its nerve channels, and the bond of unity between the two, the blood." Next follows a long discussion of the innervation of the heart and vessels, in which the author refers to the researches of himself and others, after which the production of visceral pain is taken up. Referring back to the uterus, he considers some further points in the anatomy of its nerve supply and concludes that the local causes of pain in the parturient organ are uterine and extrauterine, the extrauterine being such as are caused by pressure on surrounding structures, while the uterine are directly proportional to the degree of contraction, and are probably due to the squeezing of sensory nerve structures.

The pain of an ordinary muscle cramp is probably to be explained in the same way. Visceral pain may be absent, even in profound involvement of a viscus, where there is neither inflammation nor production of muscular spasm. Again it may be the peripheral expression of a central lesion.

One of the most interesting parts of the paper is that dealing with the subject of cardiac pain, especially the pain of angina pectoris.

The nerves of the heart are in intimate relation with the cardiac blood vessels and must undoubtedly be affected by changes in their caliber and by alterations of their walls. There again squeezing of the sensory structures and stretching of the nerves—in enlargement of the heart—most probably plays a rôle. Cardiac pain, however, may be of extracardiac origin, as witness the cardiac crises occurring occasionally in tabes, not to speak of the merely reflected pain not uncommon in disturbances of the abdominal viscera. As determining the central causation of cardiac pain little is known, but all the evidence we have is in favor of the spinal, rather than the cranial, nerve supply of the heart as "the chief territory of objective pain."

The pain of meningitis and of some headaches, the author thinks, may arise in the nerves of the membranes of the brain, but on account of the brain being the "seat of perception and the focus of the sensory channels of the body" disease implicating its centers and nerves may cause pain in a manner impossible in any other viscus. Passing on to disorders of visceral motility, the author again takes up the heart, and enters into a discussion of the causes of its motility, which space does not permit us to follow. He next proceeds to show how visceral disorder may underlie somatic motor phenomena as well as sensory phenomena. Last, turning to the brain, he considers it in its receptive, retentive (or connective), and executive functions, and reviewing the character of the nerve cells in different regions of the cortex, gives the reasons for thinking that these functions are there represented in different regions to different degrees. The above gives but a bare outline of these lectures. Those specially interested are referred to the original. The article is well illustrated. ALLEN.

230. ZUR DERMATOMYOSITIS (Contribution to Dermatomyositis). H. Oppenheim (Berliner klin. Wochens., 37, 1899, p. 805).

Two cases of dermatomyositis, or dermatomucosomyositis, are reported. The first case was a boy of eight years, who exhibited an erythematous condition of the skin of the hands, arms and face; edema more especially in the upper facial areas; intense pain on motion; sensitiveness to pressure over the affected muscles, and increased temperature. The lad assumed a stiff, rigid position to protect the affected musculature. Paresis, with atrophy of some muscles, was noted, but electric examination produced such intense pain that it had to be omitted. There was an abnormal condition of tension in the affected muscles, and on palpation these muscles felt hard and sinewy. The mucous membranes were reddened, and the patient complained of a burning sensation in the mouth and throat, made worse by attempts at swallowing. Swelling of the cubital and cervical glands Oppenheim considers secondary. Myositis ossificans is excluded on account of the absence of areas of ossification and the involvement of the mucous membranes. Trichinosis is excluded by the absence of gastro-intestinal involvement. The second case was a fifty-year-old gymnasium instructor, who immediately after a "Kneipp cure" developed a stomatitis, angina, marked edema of skin, and intense pain throughout the muscular system. Ulceration of the affected skin areas occurred, attacks of fever and bronchitis developed, and the patient showed signs of convalescence, but a rapid pulse and other symptoms of cardiac failure developed, from which he finally died. Whether the heart disease was due to the general muscular involvement or was a result of exhaustion, intoxication and increased temperature, Oppenheim was unable to decide. Microscopic examination of some of the diseased muscle of the first case showed a cellular infiltration of the muscle tissue. The perimysium was thickened and less marked changes were present in the muscle fibrils. These latter were for the greater part atrophied and at times completely destroyed. McCarthy.

231. Ueber die autochthone Hirnsinusthrombose (Concerning the Autochthonous Thrombosis of the Cerebral Sinuses). G. v. Voss (Deutsche Zeitschrift für Nervenheilkunde, Vol. 15, Nos. 3 and 4, p. 297).

Sinus thrombosis is not easily diagnosticated. Voss reports nine cases, and in eight of these the correct diagnosis was not made. The symptom-complex of sinus thrombosis resembles most closely that of acute leptomeningitis. Both diseases usually begin acutely, and headache is the most prominent symptom in both; disturbance of consciousness increasing quickly or gradually to coma; single, and later general, twitchings, tonic and clonic convulsions, paralyses, vomiting, vertigo, disturbances of the pupil, are common symptoms of both affections. Abnormalities of pulse and temperature, rigidity of the neck, pronounced hyperesthesia of the skin and muscles, and disturbances of the ocular muscles, usually occur in meningitis. Disturbance of temperature rarely occurs in sinus thrombosis, the pulse usually remains normal, rigidity of the neck is exceptional, and general hyperesthesia in muscles and skin has not been observed. Local signs of congestion (fullness of the veins of the face, nasal hemorrhage) are sometimes pronounced in thrombosis and are always absent in meningitis. Cachexia of long duration, chlorosis and anemia suggest thrombosis; whereas the presence of tuberculosis elsewhere in the body suggests meningitis. The differential diagnostic value of choked disk is uncertain. Localized disturbance of sensation (pain, hyperesthesia, anesthesia) occurs in thrombosis and not in meningitis.

The diagnosis between sinus thrombosis and cerebral tumor is also difficult. Slow development of the symptoms occurs in tumor; rapid development usually in sinus thrombosis. Distinct focal symptoms, disturbance of ocular muscles, nystagmus, paralysis, slowing of the pulse, tumor in other regions, would favor more the diagnosis of cere-